

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE Confirmation No. 7164 Confirmation No. 7164

In re application of:

KUBO et al.

Appl. No. 09/665,510

Filed: September 19, 2000

HLA Binding Peptides and Their For:

Uses

Examiner:

Schwadron, R.B.

Atty. Docket: 2060.005000D/HCC/PAC

Second Supplemental Information Disclosure Statement under 37 C.F.R. § 1.97(b)

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each document is also provided.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the

teachings purportedly offered. This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Helene C. Carlson Agent for Applicants

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	AC1	200 A1	2/0168374	11/14/2002	Kubo et al.				03/20/1997
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	AR	1	priming w		untiviral cytotoxic athetic peptide," J.				
	AS	<u>1</u>	Bertoni, R., et al., "Human Class I Supertypes and CTL Repertoires Extend to Chimpanzees," <i>J. Immunol.</i> 161:4447-4455, The American Association of Immunologists (October 1998)						
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	AR	3	Falk, K., molecules,	et al., "MHC " Immunogenet	peptide motif register. ics 38:161-162, Springe	Peptider-Verlag	e moti g (Apr	fs of HLA il 1993)	-B35 and -B37	
	AS	<u>3</u>	Falk, K., Proc. Nati	k, K., et al., "Allele-specific peptide ligand motifs of HLA-C molecules," c. Natl. Acad. Sci. USA 90:12005-12009, National Academy Press (December 1993)						
	AT	3	detailed p	peptide motifs	ol sequencing of natural HLA-DR, DQ, and DP ligands reveals fs, constraints of processing, and general rules," -242, Springer-Verlag (February 1994)					
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	AT	4	Hill, A., by HLA-B7	et al., "Char ," Eur. J. Imm	racteri munol.	ization of tw 25:18-24, VC	vo Epstein CH Verlags	-Barr vir gesellsch	rus epitop naft mbH (es restricted January 1995)
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	AS	<u>5</u>	Maryanski, J.L., et al., "Synthetic Peptides as Antigens and Competitors in Recognition by H-2-Restricted Cytolytic T Cells Specific for HLA," J. Exp. Med. 167:1391-1405, The Rockefeller University Press (1988)							
	AT	5	Parham, P., et al., "The Origins of HLA-A,B,C Polymorphism," Immunol. Rev. 143:141-180, Munksgaard (February 1995)							
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	AR	<u>6</u>	Parker, K MHC Class	.C., et al., "	"Se LA-	quence Motifs Important f A2," <i>J. Immunol. 149</i> :3580	or I	eptide	e Binding e American	to the Human Association
	AS	<u>6</u>	on Indepen	Parker, K.C., et al., "Scheme for Ranking Potential HLA-A2 Binding Peptides Based on Independent Binding of Individual Peptide Side-Chains," J. Immunol. 152:163-75, The American Association of Immunologists (January 1994)						
	AT	<u>6</u>	Reddehase, M.J., et al., "A pentapeptide as minimal antigenic determinant for MHC class I-restricted T lymphocytes," Nature 337:651-653, Macmillan Publishers, Ltd. (1989)							
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	AS	<u>8</u>	Schulz, M., et al., "Major histocompatibility complex binding and T cell recognition of a viral nonapeptide containing a minimal tetrapeptide," Eur. J. Immunol. 21:1181-1185, VCH Verlagsgesellschaft mbH (May 1991)								
	AT	<u>8</u>	Sidney, J., et al., "Several HLA Alleles Share Overlapping Peptide Specificities," J. Immunol. 154:247-259, The American Association of Immunologists (January 1995)								
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SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

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